

# BESA System – User Guide – Microsoft Windows 27 May 2022

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# **Revision History**

Date	Version	Description
27/05/2022	2.7	Added Microsoft Edge to the list of supported web browsers.
		Added BESA System installation path recommendation on subsection 5.2.
		Added Windows Server 2022 to the list of supported Windows versions.
05/03/2020	2.6	Added Windows Server 2019 to the list of supported Windows versions.
09/01/2020	2.5	Adaptation of hardware requirements (column Tomcat RAM).
		Updated the Network connectivity requirements (HospINDEX).
07/12/2018	2.4	Added disk performance details on hardware requirements subsection.
		Updated the Network connectivity requirements and the Proxy SSL
		inspection subsection.
01/06/2018	2.3	Added hardware requirements for the BESAdoc plus product. Updated the
		subsection 5.3.1.1.
11/12/2017	2.2	Added Tomcat max. memory setting and database backup time setting.
		Added the subsection 5.3.1.1 about the backup and restore features.
		Added the subsection 5.3.3 about HTTP(S) proxy settings.
20/09/2017	2.1	Added the chapter 10 about multisite installations.
26/06/2017	2.0	Added note for multisite installations on chapter 9.
22/06/2017	1.9	Added note about the password of the PostgreSQL super-user.
21/04/2017	1.8	Added Windows Server 2016 compatibility and an important statement on
		the subsection 5.3.3.4 - Saving the configuration.
27/12/2016	1.7	Added variable "HTTP non proxy hosts" for the HTTP(S) proxy settings.

# 1 Summary

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# 2 Subject

This document describes step by step the installation process of the full BESA System, including the PostgreSQL database setup and the use of the BESA System configuration tool to prepare and start the BESA Web application.

# 3 BESA System overview

The BESA System is composed of a WEB application that runs on top of an Apache Tomcat server and a PostgreSQL database server. These two components are installed with two independent installation packages. They allow the installation of the full BESA System in one single Microsoft Windows server or in two separated servers.

# **4 BESA System requirements**

This chapter presents the requirements for a complete BESA System installation.

## 4.1 Software Requirements

This section provides the software supported and required by the BESA System.

Windows versions (only 64-bits):

- Windows Server 2008 and 2008 R2
- Windows Small Business Server 2011
- Windows Server 2012 and 2021 R2
- Windows 7
- Windows 10
- Windows Server 2016
- Windows Server 2019
- Windows Server 2022

SQL database servers and versions:

• PostgreSQL 9.5

Web browsers and versions:

- IE version 8, 9, 10, 11.
- Microsoft Edge stables versions.
- Mozilla Firefox from the version 3.6 to the current version.
- Google Chrome from the version 8 to the current version.

Java SE 6, 7 or 8 - **package Java Runtime Environment (JRE<sup>™</sup>) Windows x86 (32bits)** - must be installed on the computers that will be used for the **electronic signatures**, otherwise it's not necessary to be installed. For more information about the usage of the electronic signature, please refer to the documentation provided for that matter.

The BESA System can be installed on a system with other applications already installed, like HTTP or SQL servers, as the ports used by the BESA System can be configured as required (the instructions are provided in the installation sections below).

The BESA System can also be installed on a Linux operation system and the installation instructions can be provided on a request basis as they are out of scope of this document.

# 4.2 Hardware requirements

This section presents the hardware requirements for the installation of BESA System, in four possible configurations. These requirements are given as function of the institution sizes.

Any physical computer or virtual machine running one of the Windows versions listed on the previous section should be supported.

As previously stated, the BESA System can be fully installed on one or on two separated servers. Virtual machines can also be considered for the Tomcat and PostgreSQL. When a single server is used, the needed resources must have the sum of the values provided for the Tomcat and the PostgreSQL.

#### Important statement:

The resources values provided in the following subsections do not include the resources needed for the functioning of the operating system and other applications installed on the same computer system(s) used for the BESA System. They also do not include the disk space required for the storage of database backups, because it depends on the number of daily backup used by the institution. Best practices demonstrate the need of using an independent backup server to store the database backups.

In the tables of the following sections, the columns "RAM (GB)" mean available RAM memory, measured in gigabytes. The columns "CPU" mean number of processor CPU threads, and each CPU should be 2.0 GHz or higher. The columns "Disk (GB)" mean available disk space, measured in gigabytes and the disks read/write performance should be on average 150MB/s or higher.

**Note:** Remote drives are not supported for the installation of the BESA System and the **storage of the automatic database backups** generated by the BESA System.

#### 4.2.1 System requirements for the module *Prestations* of the BESA System

Table 1 lists the system requirements for the module *Prestations* of the BESA System.

Nº of patient	Tomcat RAM (GB)	Tomcat Tomcat Tomcat RAM (GB) CPU Disk (GB (Threads)		PostgreSQL RAM (GB)	PostgreSQL CPU (Threads)	PostgreSQL Disk (GB)
30	3.5	2	25	1.2	2	25
60	3.7	2	26	1.2	2	26
100	3.9	2	26	1.4	2	27
150	4.3	2	27	1.5	2	28
200	4.5	2	28	1.6	2	29
300	5.3	2	29	1.7	2	30
500	6.5	3	31	2.0	3	31
700	8.0	3	34	2.5	3	34
1000	9.5	3	38	3.2	3	38
1500	12.5	4	44	4.2	4	44
2000	16.0	4	50	5.2	4	50

Table 1 - Requirements for the module Prestations of BESA.

#### 4.2.2 BESA Prestations and Ressources modules requirements

Table 2 lists the system requirements for the modules *Prestations* and *Ressources* of the BESA System.

Table 2 - Requirements of the BESA Prestations and Ressources modules

№ of patients	TomcatTomcatTomcatntsRAMCPUDisk (GB)(GB)(Threads)		PostgreSQL RAM (GB)	PostgreSQL CPU (Threads)	PostgreSQL Disk (GB)	
30	4.0	3	37	1.7	3	37
60	4.2	3	37	1.8	3	38
100	4.4	3	38	1.9	3	39
150	4.8	3	39	2.0	3	40
200	5.0	3	40	2.1	3	41
300	5.7	3	41	2.2	3	42
500	6.9	4	44	2.6	4	43
700	8.2	4	45	3.0	4	45
1000	10.0	4	50	3.8	4	50
1500	13.0	5	55	4.8	5	55
2000	16.2	5	61	5.8	5	62

#### 4.2.3 BESAdoc with BESA Prestations module requirements

Table 3 lists the system requirements for the BESAdoc with the module *Prestations* of the BESA System.

Nº of Patients	Tomcat RAM (GB)	Tomcat CPU (Threads)	Tomcat Disk (GB)	PostgreSQL RAM (GB)	PostgreSQL CPU (Threads)	PostgreSQL Disk (GB)
30	8.7	4	49	2.2	4	49
60	8.9	4	50	2.3	4	50
100	9.0	4	51	2.4	4	51
150	9.5	4	52	2.5	4	52
200	9.7	4	54	2.6	4	53
300	10.3	4	55	2.7	4	54
500	11.5	5	56	3.2	5	55
700	12.9	5	57	3.6	5	57
1000	14.5	5	62	4.2	5	61
1500	17.7	6	67	5.2	6	67
2000	20.9	6	73	6.2	6	73

#### Table 3 - Requirements for the BESAdoc with BESA Prestations module

## 4.2.4 BESAdoc with BESA Prestations and Ressources modules requirements

Table 4 lists the system requirements for the BESAdoc with the modules *Prestations* & Ressources of the BESA System.

Nº of Patients	Tomcat RAM (GB)	Tomcat CPU (Threads)	Tomcat Disk (GB)	PostgreSQL RAM (GB)	PostgreSQL CPU (Threads)	PostgreSQL Disk (GB)
30	9.2	6	73	2.7	6	74
60	9.3	6	74	2.8	6	75
100	9.6	6	75	2.9	6	76
150	10.0	6	76	3.0	6	77
200	10.3	6	77	3.1	6	78
300	10.9	6	78	3.3	6	79
500	12.2	7	80	3.8	7	80
700	13.4	7	82	4.2	7	82
1000	15.3	7	86	4.8	7	86
1500	18.3	8	92	5.8	8	93
2000	21.5	8	98	6.8	8	100

#### Table 4 - Requirements for the BESAdoc with BESA Prestations and Ressources modules

#### 4.2.5 BESAdoc plus with BESA Prestations module requirements

Table 5 lists the system requirements for the BESAdoc plus with the module *Prestations* of the BESA System.

Nº of Patients	Tomcat RAM (GB)	Tomcat CPU (Threads)	Tomcat Disk (GB)	PostgreSQL RAM (GB)	PostgreSQL CPU (Threads)	PostgreSQL Disk (GB)
30	8.9	4	54	2.5	4	54
60	9.1	4	55	2.5	4	55
100	9.4	4	55	2.6	4	55
150	9.7	4	56	2.7	4	56
200	10.1	4	57	2.8	4	57
300	10.8	4	58	3	4	58
500	12.2	5	60	3.4	5	60
700	13.6	5	63	3.8	5	63
1000	15.7	5	67	4.4	5	67
1500	19.2	6	73	5.4	6	73
2000	22.7	6	79	6.4	6	79

Table 5 - Requirements for the BESAdoc plus with BESA Prestations module

#### 4.2.6 BESAdoc plus with BESA Prestations and Ressources modules requirements

Table 6 lists the system requirements for the BESAdoc plus with the modules *Prestations* & Ressources of the BESA System.

Table 6 - Requirements ;	for the BESAdoc plu	s with BESA Prestations	and Ressources modules
--------------------------	---------------------	-------------------------	------------------------

Nº of Patients	Tomcat RAM (GB)	Tomcat Tomcat CPU Disk (GB) (Threads)		PostgreSQL RAM (GB)	PostgreSQL CPU (Threads)	PostgreSQL Disk (GB)
30	9.3	6	76	2.9	6	76
60	9.5	6	77	3	6	77
100	9.9	6	77	3.1	6	77
150	10.3	6	78	3.3	6	78
200	10.7	6	79	3.4	6	79
300	11.5	6	80	3.7	6	80
500	13.1	7	83	4.3	7	83
700	14.7	7	86	4.9	7	86
1000	17.1	7	90	5.8	7	90
1500	21.1	8	97	7.3	8	97
2000	25.1	8	104	8.8	8	104

# 4.3 Network connectivity requirements

In order to setup a fully functional system and to avoid eventual connection problems related to the network, we suggest the respect of the requirements listed on the Table 7 for the BESA System host.

Description	Source	Destination	Protocol	Port
<b>BESA</b> licenses validation	BESA System host	www.siems.ch	HTTPS	443
BESA automatic updates	BESA System host	www.siems.ch	HTTPS	443
BESA parameters	BESA System host	www.siems.ch	HTTPS	443
synchronization, FAQ				
synchronization and				
Resources module				
questionnaires				
synchronization				
HospINDEX drugs	BESA System host	index.hcisolutions.ch /	HTTPS	443
import and		apps.hcisolutions.ch		
Compendium data.				

Table 7 - Network connectivity requirements

All connections listed here are established with TCP mode. Additionally, the BESA System host should be able to resolve the DNS names provided in the Table 7 through the Windows DNS configuration.

The customer's IT partner is responsible for the handling of the router/firewall configuration, for example the NAT configuration and the firewall ports opening of the router and on the server (HTTP(S) ports) where the BESA System will be installed. The necessary ports to be opened depend on the ones chosen during the installation as explained in the chapter 5. If these tasks are not accomplished by the responsible partner, additional support fees may be required.

**Note:** In the case the connectivity requirements listed above cannot be met, at least a momentary Internet access is required for the validation of the BESA license; otherwise the BESA System cannot be activated and used. The other services may not work properly but they are not mandatory for normal usage of the BESA System.

# 4.4 Network speed requirements

For the normal utilization of the BESA System from a private network, it's recommended a network connection speed based on the number of patients as presented in the Table 8. These are estimated recommendations; the real network performance depends on the host location, the network infrastructure and the usage for other purposes. For the installations where the BESA System will be accessed from a public network (Internet), the connection speed will depend on your Internet access provider network, so you must test the access speed from the public network to the BESA System web application and verify the usability it.

Table 8 - Network speed requirements

Nº of Patients	30	60	100	150	200	300	500	700	1000	1500	2000
Download Speed (Mb/s)	11	32	54	72	100	150	250	300	500	600	1000
Upload Speed (Mb/s)	1	3	5	7	10	15	25	30	50	60	100

## 4.5 Customer data requirements

Before starting the BESA System installation, make sure you have received the complete customer data as it's required to successfully setup the BESA System in production. The customer data is provided by Besa Care AG. If needed, please send an email to info@besacare.ch or call ++41 (0) 31 385 33 99. The necessary data is:

- API-KEY: required to receive the BESA system updates and it's configured in configuration tool. Example value: "Q2rEr4HMr4yzmh8NodjmeMB1WPIAUnpJDjVq6ZjzXt8".
- Admin user and password: required to login in the web interface after the installation.
- Customer number: required to register the customer instance on the BESA Management, also related to "Numéros de client" field in the documentation. Example value: "123456".
- License key: required to activate all the features in the BESA System, also related to "Clé de licence" field in the documentation. Example value: "fX1gldvW72dBCq8Znj8e2IrdD6k".
- Per instance license: optional, but helps to know how the licenses have to be activated. Possible values: "true" or "false". If it is not provided, then you should consider it as "true".
- Institutions list: optional, could makes configuration simpler if known

# 5 BESA System installation

The installation process of the BESA System consists of three main steps which should be performed according to the following order:

- The setup of the PostgreSQL database server;
- The installation of BESA System package;
- The configuration of the BESA System web instances.

These three steps are described in detail in the following subsections.

## 5.1 Installation of the PostgreSQL package

The installation of the PostgreSQL server, version 9.5, is done with the package file named postgresql-9.5.11-1-windows-x64.exe. To start the installation, you should double-click on this file. You may need to authorize the launch of the installation, depending on the security settings in place on your Windows system.

The first setup step should look as shown in Figure 1 and you should follow the instructions provided below.



#### Figure 1: Setup of PostgreSQL.

Click on the button "Next" to continue to the next installation step.

Figure 2: Installation Directory.

👹 Setup			
Installation Directory			-
Please specify the directory where PostgreSQL w	vill be installed.		
Installation Directory C:\Program Files\Postgres	SQL \9.5		
InstallBuilder		1	
	< Back	Next >	Cancel

In this step you must specify the directory where the PostgreSQL server will be installed. You can use the default directory provided on the window of Figure 2. Then click on the button "Next" to continue.

Figure 3	3: Data	Directory
----------	---------	-----------

🦉 Setup			-OX
Data Directory	_		-
Please select a directory under which to store your data.	_		
Data Directory  Program Files\PostgreSQL\9.5\data	12		
InstallBuilder	< Back	Next >	Cancel

In this step you can accept the default directory shown on Figure 3 by clicking on the button "Next".

	-
ssword for the database superuser (postgres)	
<	Back Next > Cancel
	assword for the database superuser (postgres)

Figure 4: Password for the database super-user.

In this step you must define the password for the database super-user. It is important that you remember the chosen password because you will need to provide it later on the BESA Configuration Tool, to allow the automatic creation of databases.

**Note:** The password must not contain spaces neither special characters.

When the password is defined, click on the button "Next" to continue.

Figure 5: Port setting.

sten on.

On the window shown on Figure 5, you must define the port number the PostgreSQL server will use to receive connections. By default, the port "5432" is used. It's recommended to use the default port. Click on the button "Next" to continue.

#### Figure 6: Locale of the database.

🧃 Setup			
Advanced Options			
Select the locale to be used by the new database cluster.			
InstallBuilder			
	< Back	Next >	Cancel

The next step of the installation shown on Figure 6 is very important, because you need to select the locale of database, and the default value may need to be changed. So you must select the locale option "English, United States". Click on the button "Next" to go to the final step of the installation.

On the window presented on the Figure 7 you just need to click on the button "Next" in order to begin the installing of the PostgreSQL server on the computer.

Figure 7: Ready to install the database.

			-
reSQL on your cor	nputer,		
	< Back	Next >	Cancel
	greSQL on your cor	greSQL on your computer,	preSQL on your computer.

When the installation is complete (Figure 8), you must uncheck the checkbox asking to launch the "Stack Builder" because it's not necessary, and click on the button "Finish" to close the installer. After that your PostgreSQL server will be ready to use.

Setup		
(ha)	Completing the PostgreSQL Setup Wizard Setup has finished installing PostgreSQL on your computer.	
US JE	Launch Stack Builder at exit? Stack Builder may be used to download and install additional tools, drivers and applications to complement your PostgreSQL installation.	
PostgreSQL		
	< Back Finish Car	

Figure 8: End of the installation of the database.

## 5.2 BESA System package installation

After the installation of the PostgreSQL server, we will proceed to the installation of the BESA System package with the file "BESA System-X.Y.Z.exe". This installation can be performed on a different computer than the one used for PostgreSQL, as long as the BESA System host can establish connections to the PostgreSQL host on the port already configured. Otherwise, this installation can be made on the same computer.

To start the installation process, you can double click on the BESA installation package file. The installation is simple and you just need to follow the recommendations given below.

Figure 9: Installer Language.

Installer La	anguage
0	Please select a language.
F	English
	OK Cancel

The Figure 9 shows the window where you can select your preferred language for the installation. Click on the button "OK" to advance to the next installation step.



Figure 10: Welcome to the BESA system.

The Figure 10 shows the welcome screenshot. In order to start, please click on the button "Next".

Figure 11: License agreement.

License Agreement		
Please review the license terms b	efore installing BESA System 5.0.0.	
Press Page Down to see the rest	of the agreement.	
Oracle Bin	ary Code License Agreement	*
	for	
the Java SE	Platform Products and JavaFX	5
		(*)
If you accept the terms of the ag agreement to install BESA System	reement, select the first option below. 5.0.0. Click Next to continue.	. You must accept the
I accept the terms of the Lice	nse Agreement	
I do not accept the terms of t	he License Agreement	
icost 5A		

On the next step, the terms of the License agreement for the "Oracle Binary Code License Agreement for the Java SE Platform Products and JavaFX" must be accepted. In this case, please select the first radio button "I accept the terms of the license Agreement" shown in Figure 11 and click on the button "Next".

Figure 12: [	Destination	folder.
--------------	-------------	---------

Lhoose install Location	
Choose the folder in which to install	BESA System 5.0.0.
Setup will install BESA System 5.0.0 Browse and select another folder. C	) in the following folder. To install in a different folder, dick Click Install to start the installation.
Destination Folder	
Destination Folder	Browse
Destination Folder C:\Program Files\BESA System Space required: 1.5GB	Browse
Destination Folder C:\Program Files\PESA System Space required: 1.5GB Space available: 589.9GB	Browse

On next window, you have to choose the directory for installation of the BESA System. You can keep the default path and just click on the button "Install" to start the installation on the chosen directory.

**Note:** If you chose a destination folder different from the default, then then chosen path should not be too longer than the default, to prevent errors like "**Path too long**" when the releases are being automatically installed.

The installation process may take a few minutes to finish.



Figure 13: Completing the installation.

When the installation is complete, a final window appears as shown on the Figure 13. A checkbox is provided and can be selected to run the configuration tool after you click on the button "Finish". If you do not want to configure the BESA System at time, you can uncheck the checkbox. You will be able to launch the "Configuration Tool" at any time from the shortcut that will be added to the "start menu" on the sub-menu "BESA System".

# 5.3 BESA System configuration

After the installation of the PostgreSQL Server and the BESA System, you have now to configure the BESA System with the application called "Configuration Tool". If it was not launched in the previous step, you can start it with the shortcut named "Configuration Tool" on the "start menu" on the submenu "BESA System".

The main purpose of the "Configuration Tool" is to create and configure the BESA web application instance(s). To do that you must provide the following information:

- the settings of the PostgreSQL database server;
- the desired settings for the Tomcat HTTP server that is responsible to run the web application instance(s);
- the details of the instances themselves;
- the HTTP(s) proxy settings if necessary.

The application is organized in two main tabs, i.e. "General" and "Instances". The "General" tab has three sub-tabs: "PostgreSQL Database", "Tomcat HTTP Server" and "Proxy". Each tab is described in the following subsections.

#### 5.3.1 PostgreSQL Database Tab

Figure 14 shows the PostgreSQL Database sub-tab with the fields already filled as an example of a possible configuration.

greSQL Database Tomcat HTTP	Server Proxy		
Server host:	localhost		
Server port:	5432		
Admin user:	postgres		
Admin password:	•••••		
Password confirmation:	•••••		
Make databases backups:	🖲 Yes 问 No		
Backups destiny directory:	C:\backups	Browse	
Backup time [hour/min]:	23 - 0 -		
Number of days to keep:	3 🔹		
Crastas backup Porta	re a backup		

Figure 14: The sub-tab PostgreSQL database.

To simplify the configuration, some fields are filled by default with the usual settings. You must adapt them as necessary. An explanation of each field is provided on Table 9.

Field	Description	Example/Note
Server host	PostgreSQL server host	localhost
Server port	PostgreSQL server port	5432
Admin user	PostgreSQL administrator user	postgres
Admin password	PostgreSQL administrator password	The password defined during PostgreSQL installation
Password confirmation	Confirmation of PostgreSQL administrator password	Same as Admin password
Make database backups	Enable the automatic backup the instance(s) database(s)	yes
Backup destiny directory	Path of the PostgreSQL database backup destiny directory (required when using database backups)	C:\backups
Backup time [hour/min]	Hours and minutes scheduled for the creation of the PostgreSQL database	23:00

#### Table 9 - Fields of the PostgreSQL Database Server tab

	backup	
Number of days to keep	Number of days to keep in the destiny	3
	directory	

#### 5.3.1.1 Backup and restore

In the PostgreSQL Database tab there are two buttons, one to create a backup and another to restore a backup. The first allows to launch a backup immediately that will be stored in the configured backup destiny directory. The second allows to restore the BESA instances from a backup. These two buttons are particularly helpful to perform an installation migration.

From the version 5.1.0 of the BESA System installer, the backup files are created in the ZIP format, with the extension ".zip". This format allows the inclusion of the BESA System configuration defined with the "Configuration Tool" and a copy of the BESA releases in use. The configuration and releases are restored by the restore process.

With the BESA System installer version 5.0.8 and older, the backups files are created in the GZIP format, with the extension ".gz". These backups only include a copy of the PostgreSQL databases, so the remaining BESA System configuration has to be manually redefined on the "Configuration Tool". After the restore of a GZIP backup, you must also fill the API-KEY of the instances, to allow the BESA System to automatically download the BESA release(s) necessary to launch the instances.

The restore feature available from the version 5.1.0 supports the two backup file formats (ZIP and GZIP), however, restoring a GZIP backup requires that the PostgreSQL administrator password of the PostgreSQL server host in use be the same of the PostgreSQL installation from where the backup was made, while the ZIP backup doesn't have this requirement.

The mandatory settings that need to be defined before restoring a backup are the PostgreSQL connection details:

- PostgreSQL server host.
- PostgreSQL server port.
- PostgreSQL administrator user.
- PostgreSQL administrator password.

#### 5.3.2 Tomcat HTTP Server Tab

The Figure 15 shows the Tomcat HTTP Server sub-tab with some fields already filled as an example of a possible configuration.

To simplify the configuration, some fields are filled by default with usual settings. You must adapt them as necessary. An explanation of each field is provided on the Table 10.

tgreSQL Database Tomcat HTTP	Server Proxy		
Start Tomcat service:	💽 Yes 🔘 No		
Server host:	localhost		
HTTP port:	80	1	
Enable HTTPS:	• Yes 🔘 No		
HTTPS port:	443		
SSL certificate file:	C:\ssl\certificate.crt	Browse	
SSL private key file:	C:\ssl\privateKey.key	Browse	
Restart service daily:	🖲 Yes 🔘 No		
Restart time [hour/min]:	2 - 0 -		
Max. allowed memory (GB):	4 -		
		Save	Exit

Figure 15: The sub-tab Tomcat HTTP Server.

## Table 10 - Fields of the Tomcat HTTP Server tab

Fields	Description	Example/Note
Start Tomcat service	Enable the Tomcat service	yes
Server host	Tomcat server host	localhost
HTTP port	Tomcat HTTP port	80
Enable HTTPS	Enable HTTPS port	yes
HTTPS port	HTTPS port (required when using HTTPS	443
SSL certificate file	port) Path of the SSL certificate file (required when using HTTPS)	C:\ssl\certificate.crt
SSL private key file	Path of the SSL key file (required when using HTTPS)	C:\ssl\privateKey.key
Restart service daily	Enable the automatic restart of the Tomcat service	No
Restart time [hour/min]	Hours and minutes scheduled for the Tomcat service restart (required when enabling the daily service restart)	2:00
Max. allowed memory (GB)	Maximum amount of system's memory the Tomcat service can use	4

For example, it can be seen from the Table 10 that the Tomcat service will start automatically by default on the port 80 with the host *localhost*. This allow the access to the configured instances by pointing your web browser to the URL http://localhost/<instance name>, i.e. on the computer on which the BESA System is installed. It should be noted that this configuration does not allow the access from other computers on the same network. So a reachable local network hostname/IP address should be used or the global IP address "0.0.0.0".

The use of the HTTPS feature may be important for your setup, especially if the web application will be accessible from the Internet. This enables the HTTPS protocol that is an implementation of the HTTP protocol with an additional layer of security, using the SSL protocol. This additional layer allows data to be transmitted through an encrypted connection and the checking the authenticity of the server through a digital certificate. The port used normally for the HTTPS protocol is 443. To be able to activate the HTTPS you will need to provide a digital certificate and his private SSL key on the PEM-encode format that was generated for the Tomcat server host. **The private SSL key must not be encrypted with a passphrase, otherwise the Tomcat service may not start.** 

The BESA System installation does not create any SSL certificate. The SSL certification can be provided by an official Certificate Authority (CA) or by the customer's IT partner. In the last case, the IT partner must create a self-signed certificate, using additional tools (not included with BESA System) and install it on all computers used to access the BESA System.

## 5.3.3 Proxy Tab

The BESA System application doesn't use Windows host's system proxy configuration, so when the BESA System server is behind a HTTP(S) proxy, it's necessary to defined the proxy's settings on the Configuration Tool.

The Figure 16 shows the Proxy sub-tab with some fields already filled as an example of a possible configuration. An explanation of each field is provided on the Table 11.

**Note:** After defining or modifying some proxy setting and successfully saving it, you must restart your computer to apply the changes.

ostgreSQL Database Tomcat HTTP Serve	Proxy		
HTTP proxy host: HTTP proxy port: HTTPS proxy host: HTTPS proxy port: HTTP(S) proxy user: HTTP(S) proxy user: HTTP(S) proxy password: Java TrustStore file:		Browse	
Java TrustStore password:			

Figure 16: The sub-tab Proxy.

## Table 11 - Fields of the Proxy tab

Fields	Description	Example/Note
HTTP proxy host	Proxy host name/IP address for the HTTP connections	proxy.loc
HTTP proxy port	Proxy port for the HTTP connections	8080
HTTPS proxy host	Proxy host name/IP address for the HTTPS connections	proxy.loc
HTTPS proxy port	Proxy port for the HTTPS connections	8080
HTTP(S) proxy user	Username for authentication on the HTTP(S) proxy	Provided by the IT partner
HTTP(s) proxy password	Password for authentication on the HTTP(S) proxy	Provided by the IT partner
Java TrustStore file	Path of the Java TrustStore file (required when the HTTPS proxy does SSL inspection)	C:\proxy\JavaTrustStore.jks
Java TrustStore password	Password of the Java TrustStore file	Defined when creating the TrustStore file.

## 5.3.3.1 Proxy SSL inspection

If the HTTPS proxy uses SSL inspection and so, it replaces the Certification Authority (CA) SSL certificate of some of the domains of the Table 7, with the CA root SSL certificate of the proxy itself (ex. the proxywg SSL certificate), then it's necessary to create a Java TrustStore file, including the SSL certificate of the proxy. After the TrustStore is created and placed on a fixed location, it's path and password must then be defined in the BESA Configuration Tool.

To create the TrustStore file please follow the instructions on the Oracle Java documentation website: <u>https://docs.oracle.com/cd/E19509-01/820-3503/6nf1il6er/index.html</u>.

When using a JAVA TrustStore including the proxy's SSL root certificate, then the SSL inspection must be enable for **all the domain names** listed on the Table 7, otherwise some of the features of the BESA application may not work.

Alternatively, if you prefer to not create and manage the JAVA TrustStore, like for example updating TrustStore file with a new proxy's CA root certificate in the case of an update of the proxy itself, then you must disable the Proxy SSL inspection for all the domain names listed on the Table 7.

You can check if the Proxy SSL Inspection is enabled for a particular domain by accessing it with a web browser configured with the same HTTP(S) proxy settings. You can open the URLs <u>https://www.siems.ch/besamanagement/</u> and <u>https://index.hcisolutions.ch/</u> on the web browser and verify if the domain SSL certification chain it's the public one or if it's the proxy's certificate.

#### 5.3.4 Instances tab

The Figure 17 shows the Instances tab. The latter lists two instances - *production* and *formation* - already added as an example.

Configuration Tool				
neral Instances				_
Name: API-KEY: Release: Drugs update weekly: Drugs update weekday: Drugs update time [hour/min]:	besa-4.5.4 Ves Sunday 0 +	• No •		
Add Update Name	Remove	Cancel	Release	
production		besa-4.5.4		
formation		besa-4.5.4		
				_

Figure 17: The sub-tab Instances.

The Table 12 defines the different fields listed on the Instance tab of Figure 17.

#### Table 12 - Fields of the Instances tab

Fields	Description	Example/Note
Name	The instance name	production
API-KEY	The instance API-KEY	Provided by BESA Care AG
Release	Release version to be used by the instance	besa-4.5.4
Drugs update weekly	Enable the drugs information automatic update	You must enable this for the instances using the BESAdoc module.
Drugs update weekday	Weekday scheduled for drugs information update	Sunday
Drugs update time[hour/time]	Hours and minutes scheduled for drugs information update	02:00

The instances tab allows:

- the creation of the instances by the use of the buttons "Add",
- the update of an instance by the use of the button "Update",
- the suppression of an instance by the use of the button "Remove" and
- "Cancel".

**Important:** It should be noted that the configuration is only effective after saving the data, by clicking on the button "Save" (see Figure 17).

#### 5.3.4.1 Add an instance

To add an instance, we must define the name, select a release and click on the button "Add".

The instance name is required to create the instance. It defines the URL on which the web application will be accessible through the web browser. The web URL is composed by the Tomcat host and the instance name, like: http://<tomcat host>/<instance name>.

**Note 1**: The name of the instance is the same for the database and for the database user. This means that we cannot use the same name of an existing database for other installations.

**Note 2:** The name of the instance must not contain spaces neither special characters.

eneral Instances		
Name:	formation	
API-KEY: Release:	besa-4.5.4 🔹	
Drugs update weekly:	Yes No	
Drugs update weekday: Drugs update time [hour/min]:	Monday	
Add Update	Remove Cancel	
Name		Release
Name production	besa-4,5,4	Release
Name	besa-4,5,4	Release
Name	besa-4.5.4	Release

Figure 18: Add of an instance.

#### 5.3.4.2 Updating Instance

In order to update the instance information, we have to select the appropriate instance to edit on the table and then to proceed the desired changes. Finally, we have to finish by clicking on the button "Update" (see Figure 19).

Name:	production
API-KEY:	
Release:	
Drugs update weekly:	Yes No
Drugs update weekday:	Sunday 👻
Drugs update time [hour/min]:	0 - 0 -
	·
Add Update	Remove Cancel
Add Update Name	Remove Cancel Release
Add Update Name production	Remove Cancel Release besa-4.5.4
Add Update Name production formation	Remove Cancel Release besa-4.5.4 besa-4.5.4
Add Update Name production formation	Remove Cancel Release besa-4.5.4 besa-4.5.4

Figure 19: Updating an instance.

#### 5.3.4.3 Removing Instance

To remove an instance, we have to select it and to click on the button "Remove" as illustrated on the Figure 20.

**Note**: If you remove an already created instance, its database and the related data on the PostgreSQL server are automatically deleted. For this reason, the system needs a confirmation to perform the job as shown in Figure 21. A click on the button OK (see Figure 21) removes finally the instance and the associated database.

eneral Instances		
Name:	lormation	
API-KEY:		
Release:	and the second	
Drugs update weekly:	Yes No	
Drugs update weekday:	Monday -	
Drugs update time [hour/min]:	0 + 0 +	
Add Update	Remove Cancel	
Add Update Name	Remove Cancel Rel	ease
Add Update Name production	Remove Cancel Rel besa-4.5.4	ease
Add Update Name production formation	Remove Cancel Rel besa-4.5.4 besa-4.5.4	ease
Add Update Name production formation	Remove Cancel Rel besa-4.5.4 besa-4.5.4	ease
Add Update Name production formation	Remove Cancel Rel besa-4.5.4 besa-4.5.4	ease
Add Update Name production formation	Remove Cancel Rel besa-4.5.4 besa-4.5.4	ease

Figure 20: Removing an instance.

Jame	Inin	nationi		
API-KEY:	Confirmation		x	
lelease: Drugs update weekly:	Confirmation		0	
rugs update time [hour )rugs update time [hour	Are you sure you The instance will after you click th	want to delete this inst be completely deleted i e save button!	ance? including the database	
			)	_
N	ame		Release	
production	ame	besa-4.5.4	Release	
production formation	ame	besa-4,5,4 besa-4,5,4	Release	

**Figure 21:** Confirming the delete of the instance and the database.

#### 5.3.4.4 Saving the configuration

When all configurations are finished we have to save it by clicking on the button "Save" and to confirm the action as shown in Figure 22. The saving process can take a few minutes to complete, particularly when new instances are added to the configuration. Please note that, when you save the configuration, the Tomcat service will be stopped, (if it was previously started). This means that all the BESA web application instances previously configured (if any), will also be stopped.

The whole confirmation process is shown in the Figures 22, 23 and 24.

#### Important statement:

After the configurations are done and correctly saved you **must close the Configuration Tool**. This is required to prevent any conflict with the automatic updates functionality that is integrated on the BESA5 WEB application, which allows installation of new releases not available by default on the Configuration Tool. Basically this two functionalities should not be used at the same time.

ame:	Confirmation		
PI-KEY:	Confirmation		2
elease:			
rugs update weekly:	Are you sure you	want to save? This action can tak	e a few
rugs update weekday:	minutes to finish.	OK	Circuit
rugs update time [hour/	-	UK.	Cancel
Add Upda	de Rémove	Cancel	
N	ame	Re	lease
140		1 1 1 1 1	
production		besa-4,5,4	
production formation		besa-4,5,4 besa-4,5,4	
production formation		besa-4,5,4 besa-4,5,4	

Figure 22: Confirming the saving of the configuration.

Name: API-KEY: Release: Drugs update weekly: Drugs update weekly: Drugs update weekday: Drugs update time [hour/min]: Add Update Name	ease wait a moment.
API-KEY: Release: Drugs update weekly: Drugs update weekday: Drugs update time [hour/min]: Add Update Name	ease wait a moment.
Release:     Processing, please w       Drugs update weekday:     res       Drugs update time [hour/min]:     0       Add     Update       Remove     Cancel	Release
Drugs update weekly: Drugs update weekday: Drugs update time [hour/min]: Add Update Remove Cancel Name	cel Release
Drugs update weekday: Drugs update time [hour/min]: Add Update Name	rel Release
Drugs update time [hour/min]: 0 - 0 - Add Update Remove Cancel	rel Release
Add Update Remove Cancel	Release
Name	Release
	-4.5.4
production besa-4.5.4	
formation besa-4.5.4	-4.5.4

Figure 23: Processing the "save" action.

Configuration Tool		
General Instances		
Name:	Message	×

Figure 24: Successfully configuration.

lame:	Message		x
API-KEY: Release:	Message		0
Drugs update weekly: Drugs update weekday:	Configuration saved	successfully	οκ
Add Upd.	ate Rémove	Cancel	
Add Upd. N	ate Rémove	Sancel	Release
Add Upd. N production	ate Remove	Cancel besa-4.5.4	Release
Add Upd. N production formation	ate Remove	Cancel besa-4.5.4 besa-4.5.4	Release

# 6 Uninstalling the BESA System

To uninstall the BESA System we have to perform the two following steps in the listed order:

- Uninstall the BESA System package;
- Uninstall the PostgreSQL database package.

These steps are described in the following subsections.

# 6.1 Uninstalling process

To launch the uninstalling of the BESA System package, please use the Windows Control Panel, select the BESA System application and click on the button "remove".

Installer La	anguage
0	Please select a language.
F	English
	OK Cancel

In a first step, we have to select the appropriate language as shown in Figure 25. In the affirmative, continue the uninstall process by clicking on the "OK" button.



Figure 26: Welcome to the uninstall wizard.

If you want to simply uninstall the BESA System software, you can just click on button "Next". If you want to completely remove all BESA System program data, you must check the checkbox provided on the Figure 26 and then click on button "Next". It should be noted that in case of a complete removal of the program, all configuration is lost and there is no way to easy restore the system in the future.

To confirm uninstalling the application, we have to click on the button "*Next*" and you obtain the screenshot shown on Figure 27.

Remove besa syst	tem 5.0.0 mom your computer.
BESA System 5.0.0 Ininstallation.	) will be uninstalled from the following folder. Click Uninstall to start the
Uninstalling from:	C:\Program Files\BESA System\

Figure 27: Uninstall for the uninstall wizard.

When the uninstall process is finished you just need to click on the button "Close" to end the uninstall application as shown on Figure 28.

	~
Uninstallation Complete	(max)
Uninstall was completed successfully.	
Completed	
Show details	
ecost 5A	

Figure 28: The button *Close* to end the uninstall process.

# 6.2 Uninstalling PostgreSQL

To uninstall PostgreSQL package, please use the Windows Control Panel, select the "PostgreSQL 9.5" application and click on the button "remove". When the uninstalling action is confirmed, a window will show the uninstall process as shown on Figure 29.

When the uninstall process is completed, one pop-up message will display a warning, informing that the installation data directory was not removed. This is normal in order to allow the reinstallation of the PostgreSQL package without the loss of the databases data. Figure 29 shows an example of this warning message.

Figure 29: Uninstalling the PostgreSQL.

🔁 Setup	_ <b>_ _ _ _ _ _ _ _ _ _</b>
Uninstalling PostgreSQL	
Uninstall Status	
Ur	ninstalling PostgreSQL
Skipt 📑 Warning	X
The data directory (C: \Prog	ram Files\PostgreSQL\9.5\data) has not been removed.
	<back next=""> Cancel</back>

When you confirm this warning by clicking on the button "OK", another pop-up with a final confirmation message of the uninstall process will be presented. This is shown on Figure 30. In this case a successful uninstall process is shown.

Setup Uninstalling PostgreSQL		
Uninstall Status	Uninstalling PostareSOL	
Uninstallation completed	Info	XI
	Uninstallation complete OK	
	Sr	ack Next > Cancel

Figure 30: Successful uninstalling of the PostgreSQL.

In order to completely remove the PostgreSQL installation, a manual deletion of the PostgreSQL data directory should be performed. Note that by default the directory is located at "*C*:\*Program Files*\*PostgreSQL*\9.5".

# 7 Troubleshooting

The BESA System software operates using two Windows services: the "BESA System Instance Manager" and the "BESA System Tomcat". These two services work in conjunction with the "Configuration Tool" application.

If, for some reason, you cannot use the "Configuration Tool" application, or the BESA web application becomes unresponsive, you can try to resolve their issues by restarting these two Windows services. To do that you must use the Windows Services panel by opening the "start menu", typing "Services" in the search box and pressing *Enter*. Otherwise, you can use the Windows Control Panel, select Administrative Tools" and open the "Services" with a double click.

To restart the appropriate services, you can go to the Windows Services panel, clicking on with the right button of the mouse and choosing the option "Restart". Figure 31 shows the two services that you should find on the Windows Services panel.

Figure 31: Appropriate Services taken from the Windows Services panel.

🤐 BESA System Instance Manager	BESA System Instance Manager Server
🤹 BESA System Tomcat	BESA System Tomcat Server

# 8 BESA System initial configuration

Chapters 1 to 7 were devoted to the installation of the BESA System. Now, we must correctly make the initial configuration of the BESA System to be able to start using it properly. The correct configuration can be done by following the instructions provided on the subsections below, on the specified order.

## 8.1 Login and end user license agreement

To access the BESA System login page, you should use a supported web browser (Mozilla Firefox, Internet Explorer or Chrome) and go to the URL according values specified in the Configuration Tool, such as http://192.168.1.10/instance1 (where "192.168.1.10" is the Tomcat "Server host" and "instance1" is the instance "Name"). A default user is created automatically during the BESA System configuration saving process and his login credentials can be obtained from Besa Care AG.

At the first successful login, the BESA System asks the user to accept the license terms and conditions. The acceptance is required to continue the use of system. After the acceptance of the license, you can proceed to the customer instance registration.



Figure 32: Screenshot of the login page.

#### Figure 33: Screenshot of "End user licence" page.



## 8.2 Customer instance registration

Initially the application starts as standalone system, which does not provide any feature except customer registration. So first step is to register the customer application, this can be achieved following the steps described below:

- Open "A propos de BESA" feature: Use the Menu "My BESA", "A propos de BESA". At this point, the "Licences" section shows activation status for each license and none is activated.
- On "Configuration client" section, fill the "Numéros de client" field according received customer number and click "Enregistrer" button. Note: value for "Numéros de client " field is provided by Besa Care AG, so for more information please send an email to info@besacare.ch or call ++41 (0) 31 385 33 99.

A propos de BESA			Feedba
BESA			
		-	Version : besa-4.7
Configuration client			
Numéros de client 1: Enregistrer	23456		
Licences			
MODULE	Activé	DATE D'ACTIVATION	Maxmed
and the second se		Child Children Children	VALIDITE
BESA Leistungen Version 5	Non		VALIDITE
BESA Leistungen Version 5 BESAdoc	Non Non		VALIDITE
BESA Leistungen Version 5 BESAdoc BESAdoc plus	Non Non Non		VALIDITE
BESA Leistungen Version 5 BESAdoc BESAdoc plus BESA Ressourcen Version 5	Non Non Non Non		VALIDITE

**Figure 34:** Screenshot of "A propos de BESA" page.

After successfully registered customer number, the "A propos de BESA" page shows registered customer number.

Feedback A propos de BESA care Version : besa-4.7.3 **Configuration client** Numéros de client 123456 Licences Nouvelle licence Activé DATE D'ACTIVATION **BESA Leistungen Version 5** Non BESAdoc Non **BESAdoc plus** Non **BESA Ressourcen Version 5** Non NANDA-I Non

**Figure 35:** Screenshot of "A propos de BESA" page.

# 8.3 Institution creation and synchronization

After the customer instance is successfully registered, each customer's institution has to be created and synchronized. Note: creating and synchronizing institution before activating license simplifies installation process, if other institutions have to be created after license activation, please look at FAQ section.

Creating institution can be achieved following the steps described below:

- Open "Liste des Etablissements" feature: Use the Menu "Configuration", "Etablissement", "Liste des établissements".
- On title bar, click "Nouveau" button, fill the "Numéro", "Nom de l'établissement" and "Nom court" fields and click "Enregistrer" button. Note: "Numéro" field should match with BESA4 software corresponding number, it may be required to import residents. For more information, please contact either customer's BESA4 administrator or Besa Care AG.

Numéro*	1111-1111111		
Nom de l'établissement*	Institution 1	Nom court*	
Numéro de téléphone		Numéro de concorda	
Numéro de fax		Langue par défaut*	français 💌
mail			
Rue		Numéro GLN/EAN	
NPA		Numéro ZSR	
/ille			
ays			

Figure 36: Screenshot of "Configuration des données de l'EMS" page.

Once all institutions created, they must be synchronized with Besa-Management server, this can be achieved by clicking the "Synchroniser" button.

Liste des Etablissements	<ol> <li>Nouveau</li> </ol>	Foed	back 🖣	Documents			
		Synchroniser					
<mark># Noм</mark>		EDITION	PROFILS	SUPPRESSION			
Institution 1		2	2	0			
Institution 2				٢			
Multisite				0			
3 resultats							

Figure 37: Screenshot of "Liste des établissements" page.

## 8.4 License activation

Preamble: by default, a license key is "*per customer*", however, it is possible the customer has "*Per instance license*". This value is provided by Besa Care AG.

Use institution switch according "Per instance license" value:

• Unspecified or true: licenses are managed in "Multisite", select "Multisite".

Figure 38: Screenshot of the institution switch menu.



• False: licenses are managed in each institution, select concerned institution

Figure 39: Screenshot of the institution switch menu.

-		smel
-		Admin adm
-	s1 (Sys-Admin)	-
L	MS (Sys-Admin)	
V BESA	s1 (Sys-Admin)	

Once each customer's institution is created and synchronized, BESA license can be activated in order to enable BESA System features, this can be achieved following the steps described below:

- Open "A propos de BESA" feature: Use the Menu "My BESA", "A propos de BESA".
- On "Licences" section, click "Nouvelle licence" button and fill the "Clé de licence" field according the received license key and click "Valider" button. Note: value for "Clé de licence" field is provided by Besa Care AG.

Figure 40: Screenshot of "Enregistrer une nouvelle licence" page.

noro	_	_	_	_
Enregistrer une n	ouvelle licenc	e FHL dknl. QokHL UkZ z/ih		
um			Valder	O Annuler
		Nouv	ellé licence	

When the license is successfully activated, the "A propos" page shows license status table and activated licenses should be available.

A propos de BESA			Feedba
BESA care			
			Version : besa-4.7
Configuration client			
Numéros de client 12	23456		
Licences			
		No	uvelle licence
MODULE	Астіче	DATE D'ACTIVATION	VALIDITÉ
	And in case of the local division of the loc	A BARANCE AND A BARANCE	the second second second second
BESA Leistungen Version 5	Oui	18.11.2015	18.11.2016
BESA Leistungen Version 5 BESAdoc	Oui	18.11.2015	18.11.2016
BESA Leistungen Version 5 BESAdoc BESAdoc plus	Oui Non Non	18.11.2015	18.11.2016
BESA Leistungen Version 5 BESAdoc BESAdoc plus BESA Ressourcen Version 5	Oui Non Non Non	18.11.2015	18.11.2016

Figure 41: Screenshot of "A propos de BESA" page.

Once license is activated with a validity date ("Validité" column) in the future, BESA System features will be available after logged out and login again.

# 9 Interface with external applications

For the technical information about the import of the administrative data of the residents from external applications, please refer to the respective Web Service specification documents.

Please also check the following chapter for the requirements related to external applications on BESA multisite installations.

# **10 Multisite installations**

A BESA instance configured with multiple institutions must respect the following requirements:

- The residents' unique identifier used by the Web Services must be unique between all the sites even if different external applications are used.
- The residents' unique identifier must also be unique between all the sites even if no external applications are used.
- The contacts identifiers must be unique per contact.
- The name and login of the users must be unique.
- The employees code (IO) must be unique between all sites.
- The employees' unique identifier must be unique between all sites.
- The name of user profiles must be unique, if different institutions want to use different profile configurations.
- Some configurations for BESAdoc are made for all institutions of an instance, while others are made per institution.
- Updates are made for the instance, not for single institutions.
- The institutions of a multisite designate a person responsible for multisite related configurations.

# **11 Frequently asked question (FAQ)**

1. How to add a new institution and propagate license profiles and features?

Please follow steps described in "Institution creation and synchronization" section.

2. A new institution has been created, but it's not visible and so possible to use Besa System's features, how to fix this issue?

In order to successfully use a newly created institution, profiles must be published to the institution and permissions must be granted to corresponding users, this can be achieved following the steps described below:

• Open "Liste des établissements" feature: select "MS (<currentUserProfile>)" in context box, use the Menu "Configuration", "Etablissements" and "Liste des établissements"

-		MULTISITE
-		Admin adm
	MS (Sys-Admin)	

Figure 42: Screenshot of *institution switch menu*.

• In "Liste des Etablissements" page, search for newly created institution row and click edit profiles configuration available in the "Profils" column.

Liste des Etablissements	⊕ No		👿 Feedback	
1		Synchro	niser	
NOM	EDITION	PROFILS	SUPPRESSION	· · · · · · · · · · · · · · · · · · ·
Institution 1	2	2	.0	
Institution 2			0	
Institution 3			0	
Multisite			onfiguration de	s profils utilisateur actifs pour cet établissemer
4 résultats				
O Nouveau				

Figure 43: Screenshot of "Liste des Etablissements" page.

• In "Profils de l'Ems" page, check the following profiles: "0.0 BESA Super ADMIN", "00.L1 Admin BESA5", "00.L2 Planungsverantwortliche/r mit Abschlussrecht", "00.L3 Planungsverantwortliche/r ohne Abschlussrecht", "00.L4 Anwender", "00.L5 Nur Lesen", "BESA Care", "Sys-Admin", then click "Enregistrer" button.

Figure 44: Screenshot of "Profils de l'Ems" page.

0	Tous C Aucun
	0.0 BESA Super ADMIN
	00.L1 Admin BESA5
Г	00.L2 Planungsverantwortliche/r mit
Ab	schlussrecht
	00.L3 Planungsverantwortliche/r ohne
Ab	schlussrecht
	00.L4 Anwender
	00.L5 Nur Lesen
F	1.0 Institutionsleitung
	1.1 Verwaltung
	1.2 QM
Г	2.0 BESA Verantw.ADMIN
	Enregistrer

• Open "Comptes utilisateurs" feature: select "MS (<currentUserProfile>)" in context box, use the Menu "Configuration", "Utilisateurs" and "Comptes utilisateurs".

¢	ompte	s utilis	ateurs				🔱 Nouvel utilisateu	r 🙀 Feedback	Docum	nents
9	Recher	che	<u></u>		Ac	tif	Oui	1	-	
	Profil		*	-	Co	nnexior	extérieure *		Fitrer	
▲	<b>‡ <u>Noм</u></b>	• Prénom	Profil	togn	• <u>Io</u>	ACTIE	Acceptation LPDD	CONNEXION EXT	ÉRIEURE	
		Admin	Multisite (Sys-Admin) actif Institution 1 (Sys-Admin) actif Institution 2 (Sys-Admin) actif	admin	adm		18.11.15			0
	BESACARE	BESACare	Multisite (BESA Care) actif Institution 1 (BESA Care) actif Institution 2 (BESA Care) actif	besacare	besaca	re 🗹	18.11.15			0
rési	ultats									
_	A Nouvel	utilisateur								1

Figure 45: Screenshot of "Comptes utilisateurs" page.

• For each user that needs access to created institution, edit and select corresponding profile in list and select "Actif" for this profile.

Figure 46: Screenshot of "Ajout/Edition d'un compte utilisateur" page.

jo	ut/Edition d'un comp	ote utilisate	ur		Feedba	ck 🗓 C	ocume
~	Nom		Admin				
	Login*		admin				
	Mot de passe			Niveau de s	écurité :		
	Mot de passe (vérification)						
	Profil*		Institution 1	Sys-Admin	•	Actif	-
			Institution 2	Sys-Admin	-	Actif	-
			Institution 3		-	Actif	-
	L'utilisateur peut gérer lui-même ses widgets		Multisite	Sys-Admin	-	Actif	-
					- 1-1		
	L'utilisateur possede une carte a puce (SmartCard)						
	Adresse IP	🥮 Ajouter une a	dresse				
	Une adresse IP est une suite de 4 chiffres allant de 0 à 255 separé par 3 points (exemple: 10.84.165.2).						
					Retour	Enregis	trer

• Finally, each modified user have to logout and login to make new permissions visible